

Improving Test Scores Through Assessment Data

Presented by the Office of Assessment and Curriculum
Wyndham Riverfront, Little Rock
March 9-10, 2010

Improving Test Scores Through Assessment Data

- Test Reliability
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- Timing for Running Reports
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Test Reliability

- Test Analysis Report
 - The Test Analysis Report presents detailed information regarding the statistical/psychometric performance, including the reliability, of an assessment
 - Helps ensure that a test reliably measures what it was designed to measure
 - Provides data and analysis crucial for ensuring defensibility of an assessment.
 - Calculates Cronbach's Alpha Test Reliability - the gold standard for measuring reliability.

Test Reliability

- Cronbach's Alpha Score
 - Cronbach's Alpha is a statistical algorithm run on standardized assessments, designed to indicate if an assessment is reliably testing the standards it is intended to assess
 - High stakes assessments such as ACT, SAT, etc., use a Cronbach's Alpha threshold of .9
 - Arkansas CTE assessments are considered “medium” stakes assessments and are legally defensible at a threshold of .8

Test Reliability

Test Analysis Report

Assessment name 09-10 493200 Nutrition and Wellness

Assessment description

Assessment author Keith

Assessment ID 352781116671395

Assessment last modified Aug 24 2009 00:00:00

Report date & time Jan 21 2010 12:43:06

Filters

Date from Nov 23 2009 to Jan 15 2010

Participants who finished

MaxPossibleScoreText

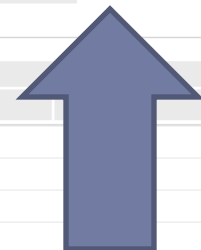
Table of Test Statistics

Number of examinees	1339	Mean	40.26/60 (67.1%)	Standard error of mean	0.24/60 (0.4%)
Number of items	60	Median	42/60 (70%)	Standard error of measurement	3.1/60 (5.17%)
Maximum possible score	60	Mode	43/60 (71.67%)	Skew	-0.702
Minimum achieved score	9/60 (15%)	Standard deviation	8.75/60 (14.58%)	Kurtosis	0.28
Maximum achieved score	59/60 (98.33%)	Variance	76.53/60 (127.55%)	Test reliability (Cronbach's Alpha)	0.875

Reliability is most meaningful if all items cover the same subject area.

Reliability (Topic Level)

Topic	Number of items	Mean	Standard deviation
493200 Nutrition and Wellness\A Nutrition, Wellness, and You\A1.10 Summarize the roles of food industry	2	1.74/2 (87%)	0.53/2 (26.5%)
493200 Nutrition and Wellness\A Nutrition, Wellness, and You\A1.2 Identify the aspects of wellness	3	2.02/3 (67.33%)	0.88/3 (29.33%)
493200 Nutrition and Wellness\A Nutrition, Wellness, and You\A1.4 Examine wellness as a choice	2	0.92/2 (46%)	0.65/2 (32.5%)
493200 Nutrition and Wellness\A Nutrition, Wellness, and You\A1.5 List the steps of the decision-making	1	0.46/1 (46%)	0.5/1 (50%)
493200 Nutrition and Wellness\A Nutrition, Wellness, and You\A1.7 Examine the development of regional foods	2	1.39/2 (69.5%)	0.68/2 (34%)
493200 Nutrition and Wellness\A Nutrition, Wellness, and You\A1.8 Identify ways global food choices are	2	1.27/2 (63.5%)	0.59/2 (29.5%)
493200 Nutrition and Wellness\A Nutrition, Wellness, and You\A1.9 Research government guidelines for health	1	0.45/1 (45%)	0.5/1 (50%)
493200 Nutrition and Wellness\B The Nutrition Health Connection\B2.2 List the six nutrients	2	1.42/2 (71%)	0.66/2 (33%)
493200 Nutrition and Wellness\B The Nutrition Health Connection\B2.3 Describe the role of carbohydrates on health	2	1.2/2 (60.5%)	0.74/2 (37%)

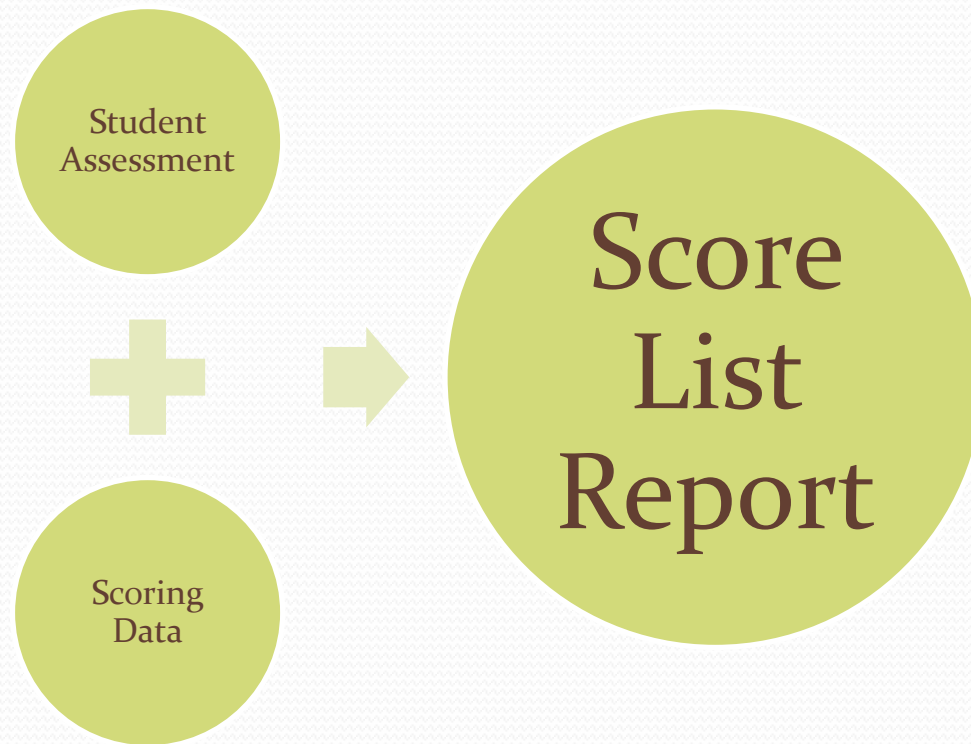


Item Reliability

- Test Analysis Report
 - As explained previously the test analysis report is used to determine assessment reliability
 - The TAR can also be used to determine reliability at a framework objectives level by analyzing all items assessed with that objective
 - Currently we are unable to produce item level reliability due to the number of items tested per objective
 - This can be accomplished by using larger and/or more focused assessments

Available Reports

- Score List Report



Available Reports

Enterprise Reporter

Score list report

Report generated: February 19, 2009 - 15:51

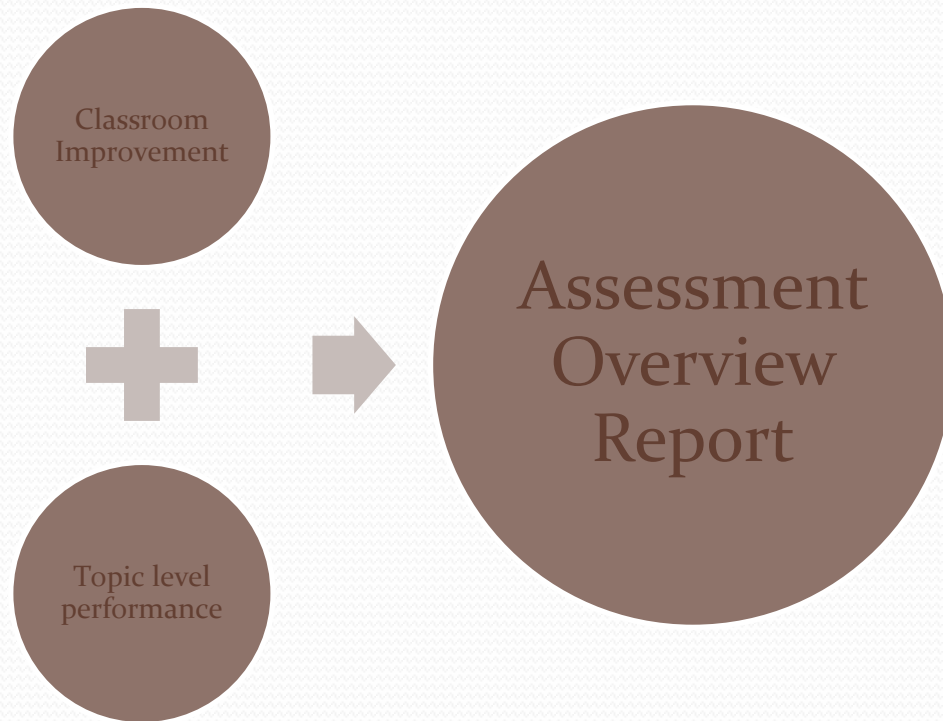
Filters for this report

date : from November 22, 2008 to January 17, 2009

Name	First Name	LEA	Percentage score	Assessment name	Assessment group
	Cody	7207062	45%	08-09 491200 Biological Animal Sciences	00-2- 1-Q2-2009
	Andrew	4401003	78%	08-09 491200 Biological Animal Sciences	00-3- n1111-Q2-2009
	Kendrick	1905017	53%	08-09 491200 Biological Animal Sciences	00-1- ers1609-Q2-2009
	Taylor	5102006	52%	08-09 491200 Biological Animal Sciences	00-7- Q2-2009
	Hannah	1203011	63%	08-09 491200 Biological Animal Sciences	00-6- berger1111-Q2-
	Nelson	0405048	67%	08-09 491200 Biological Animal Sciences	00-6- 111-Q2-2009
	Jonathan	3105011	50%	08-09 491200 Biological Animal Sciences	00-4- 1909-Q2-2009
	Robert	1203011	70%	08-09 491200 Biological Animal Sciences	00-6- berger1111-Q2-
	Dillion	0601007	80%	08-09 491200 Biological Animal Sciences	00-2- 0511-Q2-2009
	Nathaniel	0601007	45%	08-09 491200 Biological Animal Sciences	00-2- 0511-Q2-2009
tt	Josiah	5102006	63%	08-09 491200 Biological Animal Sciences	00-7- Q2-2009
	Colby	1104018	57%	08-09 491200 Biological Animal	00-1- n1211-Q2-2009

Available Reports

- Assessment Overview Report

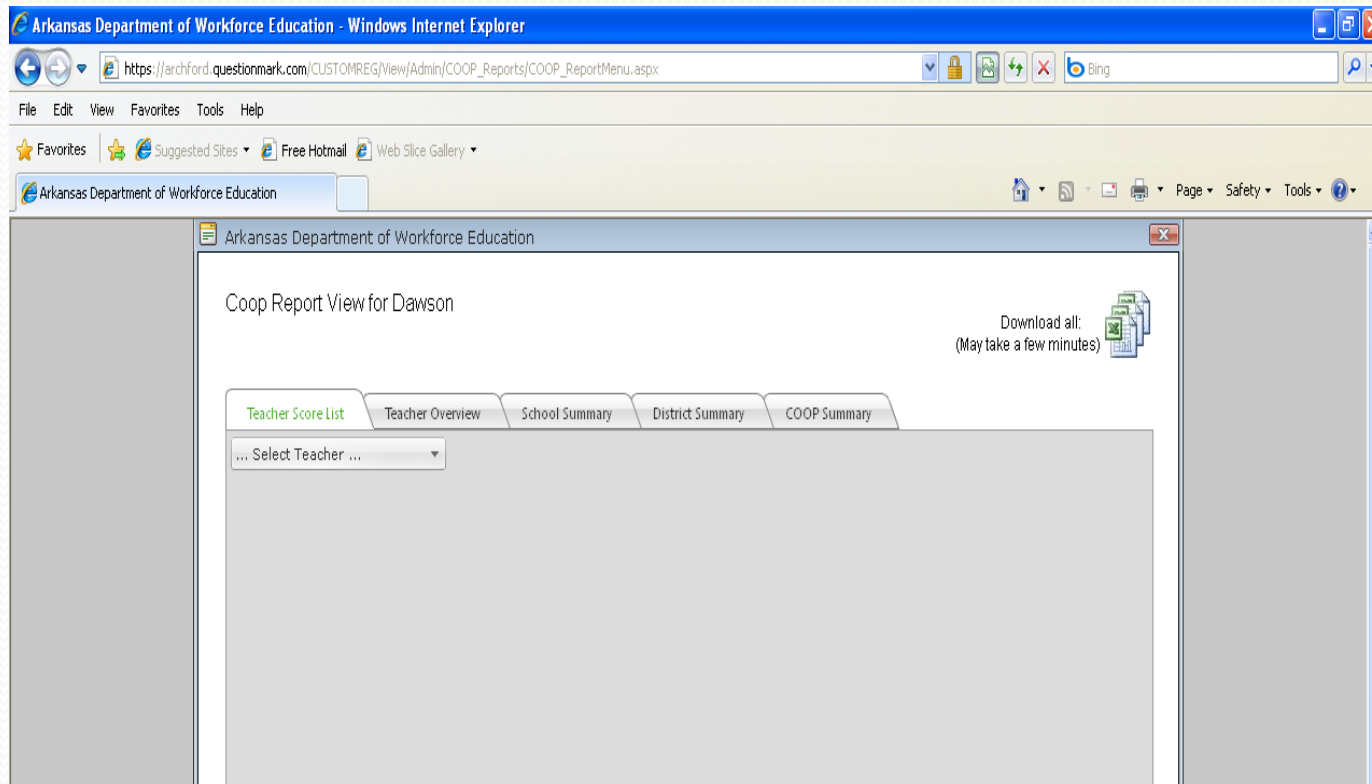


Available Reports

Enterprise Reporter	
Assessment overview report	
Report generated: February 19, 2009 - 15:04	
Filters for this report	
Filter on date :	from January 1, 1995 to February 19, 2009
08-09 491300 Leadership and Communication	
Assessment Name	08-09 491300 Leadership and Communication
Number Started	568
Number Finished	568
Minimum Score	11
Maximum Score	57
Mean Score	44
Mean Time Taken	0:21:41
Topic information	
491300 Leadership and Communication\A LEADERS AND LEADERSHIP\A1.2 Discuss the importance of leadership	61.4%
491300 Leadership and Communication\B LEADERSHIP STYLES\B2.2 Interpret the autocratic (authoritarian)	49.3%
491300 Leadership and Communication\B LEADERSHIP STYLES\B2.3 Interpret the democratic leadership style	53.7%
491300 Leadership and Communication\B LEADERSHIP STYLES\B2.4 Interpret the participative (laissez-faire)	48.2%
491300 Leadership and Communication\C GOAL SETTING\C3.1 Define terms	68.1%
491300 Leadership and Communication\D TIME MANAGEMENT\D4.1 Define terms	79.4%
491300 Leadership and Communication\D TIME MANAGEMENT\D4.2 Explain the importance of setting priorities	85.8%
491300 Leadership and Communication\E GROUP DYNAMICS\E5.1 Define terms	95.1%
491300 Leadership and Communication\E GROUP DYNAMICS\E5.2 Explain the role of group dynamics	87.9%
491300 Leadership and Communication\E GROUP DYNAMICS\E5.5 List and explain the responsibilities	17.8%
491300 Leadership and Communication\F CONFLICT RESOLUTION\F6.1 Define terms	76.7%
491300 Leadership and Communication\F CONFLICT RESOLUTION\F6.2 Discuss the meaning and importance of	77%
491300 Leadership and Communication\F CONFLICT RESOLUTION\F6.3 List the causes of conflicts	47.5%
491300 Leadership and Communication\F CONFLICT RESOLUTION\F6.4 Discuss conflict management processes	68.7%
491300 Leadership and Communication\G AGRICULTURAL COMMUNICATIONS SKILLS AND CAREERS\G7.1 Define terms	89.1%
491300 Leadership and Communication\G AGRICULTURAL COMMUNICATIONS SKILLS AND CAREERS\G7.2 Discuss the meaning and importance of	69.6%

Available Reports

- Coop End of Year Download



Timing for Running Reports

- January
 - Group Reports
 - Score Reports
 - Assessment Overview Reports
 - NOT FOR DISTRIBUTION
- End of Year
 - All available Reports
 - Reports by Request
- Coop Download

Course Improvement Plan

- WETest website
 - <http://wettest.k12.ar.us/Improvement%20Plan.htm>

Workshops/Scheduling

- The OAC will make itself available for any assistance in the form of workshops or training
- Please note, all scheduling must be approved in advance by the OAC Program Manager
- With yearlong testing and limited OAC staff advanced notice is absolutely imperative

Questions or Comments?

Thanks for Listening!

Please feel free to contact the Office of Assessment and Curriculum any time

assessment@arkansas.gov

501-682-1

<http://wetest.k12.ar.us>